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(54) Title: HETERO-SUBSTITUTED BENZIMIDAZOLE COMPOUNDS AND ANTIVIRAL USES THEREOF

(57) **Abstract:** The present invention relates to novel hetero-substituted benzimidazole compounds that have useful antiviral activity. More specifically, the invention encompasses hetero-substituted benzimidazole compounds that inhibit membrane fusion associated events such as viral transmission, reduce viral load or otherwise treat viral infections. The invention also encompasses the use of hetero-substituted benzimidazole compounds as inhibitors of membrane fusion associated events, such as viral transmission. In another embodiment, the invention encompasses processes for making hetero-substituted benzimidazole compounds, methods of using the hetero-substituted benzimidazole compounds and compositions comprising the hetero-substituted benzimidazole compounds. Finally, the invention provides methods for treating, preventing or ameliorating symptoms associated with respiratory infection, particularly that caused by Respiratory Syncytial Virus utilizing the novel benzimidazole compounds of the invention.

# INTERNATIONAL SEARCH REPORT

International application No.

PCT/US03/35542

## A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : A61K 31/7052, 31/675, 31/655, 31/4184; C07D 235/12, 235/14  
US CL : 514/23, 150, 151; 548/304.4, 304.7, 309.7, 310.1

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## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)  
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Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X, P	US 2003/0119754 A1 (LACKEY et al.) 26 June 2003(26.06.2003), columns 67-76.	1-72
X, P	US 2003/0207868 A1 (YU et al.) 06 November 2003 (06.11.2003), columns 64-65.	1-72
X, P	US 6,506,738 B1 (YU et al.) 14 January 2003 (14.01.2003), columns 204-210.	1-72
X,P	US 6,489,338 B2 (YU et al.) 03 December 2002 (03.12.2002), columns 29-30.	1-72
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